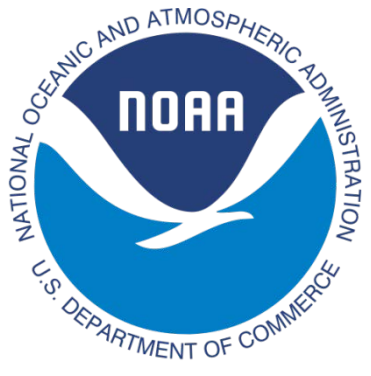
NGS POLICY 2013-08



Policy on Supporting Real-Time GNSS Positioning

National Geodetic Survey

Approved by the Executive Steering Committee

31 October 2013

NOAA's National Geodetic Survey (NGS) endorses the development of Global Navigation Satellite Systems (GNSS) technology to support accurate and reliable real-time positioning services that are consistent with the U.S. National Spatial Reference System (NSRS).

NGS will continue to support real-time GNSS positioning by implementing the following:

1. Develop standards, specifications and guidelines to help users obtain optimal results from real-time GNSS positioning technologies. This would include specific documents for users of single-base technology as well as for users of real-time GNSS networks (RTN). See link below for document:
http://www.ngs.noaa.gov/PUBS_LIB/NGSRealTimeUserGuidelines.v2.1.pdf

2. Develop standards, specifications and guidelines for administering RTNs. These documents may include:

   A. Reference station location and construction considerations.

   B. Promote the use of open source and generic formats such as RTCM through the use of the most current Networked Transport of RTCM via Internet Protocol (NTRIP) programs.

   C. Promote RTNs to support as many different GNSS hardware and firmware packages as possible.

   D. Guidelines to recommend methods to enable RTN results to be aligned with the NSRS. This may include methods to archive and quality check RTN data.

   E. Guidelines to recommend methods to determine accurate positional coordinates and velocities for RTN reference stations.

   F. RTN administrator guidelines (draft / public review version):
   http://www.ngs.noaa.gov/PUBS_LIB/NGS.RTN.Public.v2.0.pdf

4. Encourage RTN administrators and users to verify, using OPUS or other positioning services, that the positional coordinates obtained from their RTNs are consistent with the NSRS.

5. Maintain a strong presence and seek leadership roles at various conferences, meetings and venues where real time positioning is addressed.

6. Participate in education and outreach to both disseminate relevant information as well as to acquire feedback regarding the suitability of RTN standards, specifications and guidelines promoted by NGS.

7. Continue to research phenomena affecting accurate positioning, including satellite orbits, refraction, multipath, antenna calibration and crustal motion.